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WEEKLY STATION REPORTS

OF THE OFFICE OF

DRY LAND AGRICULTURE INVESTIGATIONS

BUREAU OF PLANT INDUSTRY

U. S. DEPARTMENT OF AGRICULTURE

AUG 6 1921

Akron:

Threshing and cutting has held attention the whole week with cultivating taking up whatever available time was left. Weeds started in lively shape after the heavy rain of some two weeks past and it has been necessary to cultivate practically all the open ground. Fallow strips and both orchards are receiving attention the past two days. Rotation corn plats also were cultivated to destroy the myriads of weeds that started after the rain. Surface hoe cultivator is being used among the corn with telling effect on the weeds and with no apparent damage to the corn.

All the threshing of experimental plats is finished except the spring wheat plats on the Rotations and on the Cereal Project. Increase field of Kanred wheat and of oats are to be threshed yet. Rotation oats yielded from 33.2 bushels per acre on M.C. Fallow to 3.9 bushels per acre on rotations 95 and 41. Barley yielded high on M.C. Fallow with 33.4 bushels and low on Rotation 7 with 7.6 bushels. Winter wheat yields range from 28.5 bushels on rotation 28 to 3.1 bushels on M.C.A.

Professor Burdick of the Agronomy Department of the State College, Mr. E. C. McCarthy of the Botany Department and Mr. P. T. Lister, Graduate Student at the State College, visited the station the past week. Messrs. McCarthy and Lister were here in the interest of the grazing experiment with sheep.

Ardmore:

Temporary relief was received from the long continuous drouth by a total precipitation amounting to .40 inch on the 31st of July and the 1st of August. This rainfall, however, did very little to benefit crops in this section, but it had a beneficial effect in cooling the temperature so to give temporary relief to the oppressive heat of the past thirty days. The moisture did not penetrate sufficiently to be of any material benefit to corn or cane crops. Both of these crops will be the lightest in the history of the station, with the exception of the year 1913 and 1914, when no crops at all were produced. As stated in previous reports, the cane crop which is only about 30 inches high, has fired badly and it not expected that this forage crop will produce feed returns at all adequate to the amount of expenditure in planting and cultivating it.

All small grain plots were threshed on the station during the week. Threshing was completed late this afternoon (6th), but the average yields have not yet been computed. Generally it may be said that spring wheat yielded from 6 to 21 bushels per acre; winter wheat from 10 to 38 bushels per acre; flax was very poor; oats were by far the best of the small grain crop, the plots yielding from 75 to 80 bushels per acre.

Temperature for the week, maximum 91; minimum 51; precipitation .40".

Archer:

The weather for the week ending August 6 continued dry and warm with considerable wind during the last few days. On July 31 there was a shower of .21 inch followed by sprinkles of .02 inch on August 1 and 2. This precipitation was not sufficient to moisten the top layer of dry soil. The corn seeded on fall plowed plats is burning badly as is also some of the oats. The barley ripened very rapidly and was harvested August 6. Preparations are being made to begin threshing the fore part of next week.

Field work has consisted of hoeing the weeds from the silage corn, harvesting the cereal experimental plats of winter wheat, early varieties of oats and barley.

Maximum temperature 93; minimum 42; precipitation .25 inch.

Bellefourche:

Threshing of the dry land rotations was finished on the 4th. Low yields were secured on all plats except where the crop was on fallow or green manured land. A table of yields follows:

Field "B".

Rotation No.	Wheat.	Oats.	Barley.	Winter Wheat.	Flax.
1	2.8	0			
2	0	6.3			
3	3.0	0			
4	0	5.9			
5	30.3	0			
6		3.4	6.0		
7		0	16.3		
8	0	39.1			
9	4.2	0			
10	2.5	4.4			0
11	2.0	40.3			
12	0	0			
14	2.0	32.8			
15	17.7	3.4			
16	2.0	33.1			
17	19.5	0			
18	24.5	4.7			
19	1.8	41.3			
31	3.5	4.1			
32	2.2	5.6			
33	0	0			
34	1.7	5.0			
42	2.2	0			
71	0	30.6			
72	22.2	4.4			
75	26.0	10.3			
76	14.2	41.3			
M.C. A	3.8	5.0	17.9	9.5	
" B	2.0	0	0	6.3	
" D	25.0	40.9	43.5	0	
" E	0	3.4	0	6.5	
" F	2.5	5.6	5.8	4.8	
Average	7.3	11.6	12.8	5.4	

Some of the plats of corn recovered from their drought injury after the rain during the latter part of July, but most of the plats were injured beyond recovery before the rains came. Sorghum and potatoes are in fairly good condition.

Grasshoppers are more numerous on the station this year than they have been any previous year. So far they have done little damage and this damage has been confined to crops on irrigated land.

Maximum temperature for the week 89, minimum 39; precipitation .02".

Big Spring:

Daily temperatures have ranged high for the week and the weather still remains dry. Crops are suffering badly from the continued dry spell and unless rain comes within the next ten days many of the plats of milo, corn, kafir and sorghum in the rotation and c.c. series will be so badly burned that harvesting will be necessary. Representatives from the Fordson Tractor Factory and Oliver Plow Works gave a demonstration at the farm Saturday, August 6. Four Fordson tractors were used in the various demonstrations. Some three hundred and fifty people were present and lunch was served at noon by the local Fordson dealer at Big Springs. The demonstration consisted of plowing, disking, listing, seeding and harvesting.

Maximum temperature 101; minimum 69; evaporation 2.48 inches; wind velocity 4.6 miles per hour; precipitation .02 of an inch.

Edgeley:

The past week has been warm and dry. Corn is badly in need of rain. In some places in the fields the corn is beginning to dry up. No threshing has been done at this Station although the grain is in excellent condition to thresh. We expect our new threshing rig here any time now and are ready to thresh as soon as it gets here. Threshing is becoming quite general in this district. Labor is holding out for four dollars per day.

Millet is drying up before it matures and is being cut for hay.

Maximum temperature for the week 91; minimum 41.

Garden City:

A pretty good rain on the first of August helped to brighten things up for a few days. Some hail accompanied this rain but there was not enough of it to do any damage.

Everything is growing well now and all the milo and kafir is heading out. Present prospects indicate another good year for the sorghum crops. Sudan grass was harvested this week and yielded from two to three tons of hay per acre.

The temperature reached 99 on the third which was the highest thus far this season. As a whole the weather this summer has been very moderate with very few hot winds which are so common in western Kansas.

Dean Farrell from the Kansas State Agricultural College and Messrs. Kent and Hallsted from the Hays station were station visitors on the fifth and sixth.

Maximum temperature for the week 99 degrees; minimum 61; precipitation .84 inch.

Havre:

Conditions during the last week indicate autumn. Temperatures are running lower especially at night. On the first there was a maximum of 90 with two other days over 80. The other days have shown less than 80 as the maximum, with one 69. The minimum readings have been from 40 to 50.

There was a shower of .20 on the first which was the only precipitation recorded.

This week completed the harvest of all dry land grains. There still remains some late seeded flax and irrigated barley to cut.

Threshing on the station started on the 6th. A field of winter rye gave a yield of nearly 14 bushels. With the exception of 4 plots all barley on the rotations was threshed. The range in yield was from 1.9 bushels which was from MCB-c continuous barley on subsoiling in the fall, to 34.8 from MCD-b which was on fallow plowed 8 inches deep. The two most prominent facts in the barley yields are that fallow is outstanding with an average on 4 plots of more than 26 bushels, and second, that the yields from corn ground is lower than the normal as compared with the average yield.

Mr. H. N. Vinall of the Office of Forage Crops Investigations was a station visitor on the 3rd.

Hays:

Dry weather continues in this locality, although rains continue to come close. Three sprinkles measuring a total of .62 occurred, but these were scattered and falling on a dry soil did no apparent good. Crops are burning badly, especially corn on the upland. Kafir is also suffering considerable.

Maximum temperature 102; minimum 52.

Observations made a few miles from Hays in most every direction show much less damage from drouth and some very good corn.

Huntley:

Harvest operations have been the chief work on the Dry Land fields during the past week. All small grains are now cut and the plats tagged ready for threshing. Though some of the grain was very short it was possible to gather it all with the binder. Winter wheat having generally thin stands on all plats was very weedy with Russian thistle. This was also true of most of the flax plats, though other spring sown grains were comparatively free of weeds.

Corn remains at a standstill, all plats but the listed and fallow corn being dried up beyond recovery. Grasshoppers continue to do some damage to the crop but it is insignificant compared to the damage done by the drought. The cool weather of the past week has been favorable to the growth of potatoes and such other crops that are still surviving dry weather and grasshoppers.

Temperatures for the week, maximum 92; minimum 44; precipitation .10".

Judith Basin:

The past week has been comparatively cloudy with occasional high winds. No rain was received and all crops are suffering to some extent from lack of moisture.

Small grains are ripening very rapidly and harvesting has commenced quite generally throughout the basin. Work on the station has been devoted almost entirely to harvesting of plats and increase fields of winter wheat and oats. A few plats of barley have also been cut.

Mr. N. F. Woodward and Mr. H. N. Vinall of the Forage Crop Office were visitors at the station during the week.

Maximum temperature 85; minimum 41; precipitation, none.

Lawton:

The last good rain that was of much benefit to crops occurred July 11. Since that time the weather has been hot and dry. Very hot winds prevailed during the last three days of the past week when the maximum temperature was 102, 105 and 105, respectively. All crops have wilted and rapidly shown the effects of hot winds and the lack of sufficient moisture. The foliage on corn is so badly burned that it will be necessary to harvest by the 8th. The ears are pretty well matured and an unusually good corn crop will obtain over most of the county.

All of the sorghum crops are withstanding the dry weather in pretty good shape so far. Their present stage of growth, however, demands a maximum usage of water.

Broom corn was pulled during the week. The crop is pretty light on most of this project on account of chinch bug injury.

Cowpeas which were retained for seed production have been harvested and will be threshed as soon as they are thoroughly cured.

Maximum temperature for the week 105; minimum 65; wind velocity 5.2 miles per hour; evaporation 2.113; precipitation, none.

Mandan:

Agronomy.

All fallows were gone over with the Kimble and Spring-tooth harrows to break up the crust formed since the recent rains and to get newly started weeds.

Work on a soil texture survey of the triplicate 1-9 rotations of the main field was commenced this week.

Rainbow flint, a new variety introduced in the corn variety test this year, gives promise of being an excellent yielding silage corn for this section. Thus far it is taller than any other variety in the test, and possesses a remarkable foliage growth.

Red Amber sorgo in the silage test is better than head high and just beginning to head out. To all appearances at present it should make the greatest tonnage of green material among the silage crops. The sunflowers though checked severely by the July drought, have been helped considerable by the recent rains.

Soil samples on stubble, taken this week, indicate that much of the moisture from the recent rains has been removed by weed growth and by evaporation. In standing corn the moisture conditions are better.

The weather has been mostly cool with high winds prevailing during the latter half of the week.

Maximum temperature 96 on the 4th; minimum 47 on the 6th; precipitation .02 inches.

Arboriculture.

Mr. Cobb was at Norfolk, Nebraska, August 1, and expects to be meeting the County Agent at Lusk, Wyoming, about August 16.

Mr. A. W. Emerson was at Glasgow, Montana on August 3, and should reach Havre about August 12.

Mr. V. D. Gilman wrote from Edwards, Montana, August 3, and hopes to be at the Judith Basin Field Station about August 13.

Visitors during the week included Mr. R. L. Davis of the Office of Fibre Investigations.

Cooperative Grazing Experiment.

The cattle made fair gains during the month of July. However, the vegetation has dried up badly and very little new growth is coming on. The feed in the 30 acre pasture is getting very short. This is indicated by the light gains for July. Artemisia frigida (Pasture Sage) has made a heavy growth in this pasture and very little of it has been taken by the cattle to date.

The following gains in pounds per pasture were made by the cattle during July. There are ten head of two year steers in each pasture, except the Rotation which is carrying 17 head.

Pasture acres	100	70	50	30	Rot.(70).
Lbs. gain	540	590	630	240	960

North Platte:

Much cooler weather has prevailed during the past week. Precipitation early in the week totaled 1.15 inches on the table and .89 on the bench. July precipitation was 3.12 and 2.39 inches respectively for the two locations on the station, while the North Platte Weather Bureau reports but .80 inch for the month. Rains during the entire season have been local in nature. The North Platte Weather Bureau reports a precipitation deficit of 6.02 inches since January 1. At the station table gauge the deficit is only 3.76 inches. The normal is 12.88 inches. The deficit therefore amounts to 47% of the normal in one case and but 2% in the other.

The writer has just returned from a trip to the Scottsbluff Station. Crops along the route are generally better than the average, but there are many local areas where much injury has been caused by drouth. At the Scottsbluff Station drouth conditions have been severe. Yields of all dry land crops will be low, perhaps not more than half as large as those secured or expected at North Platte.

Woodward:

The past week has been very hot and dry with the maximum temperature going over 100 degrees on three different days. We have not had a good rain for some time and are beginning to need one. Crops are making good progress towards heading and are apparently not suffering much yet, but will soon without rain. Grapes are ripening fast, and most of the time the last week was spent in picking grapes, cutting weeds, and other odd jobs.

Mr. Parks of the Dairy Division was a visitor at the Station on Wednesday and Mr. Stephens of the Mandan Station on Thursday and Friday. Mr. Chilcott and Mr. Stephens left here by auto Friday afternoon to visit Dalhart and other stations.

Maximum temperature 107; minimum 55; average hourly wind velocity 6.5 miles; precipitation, trace; evaporation 2.053".

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AUG 13 1921

REPORT FOR WEEK ENDING AUGUST 13, 1921.

Akron:

All fallow and green manure plats were disked the fore part of the week. Rotation roads also were graded to eliminate recent weed growth. Grain threshing was resumed on Wednesday when work was started on the spring wheat plats on the rotations and on the Cereal Project. Wheat yields on the rotation plats were very light due in large part to rabbit and grasshopper damage. Wheat yields on the Cereal Project not being affected by these pests proved better than was anticipated. Increase oats field and increase Kanred wheat field were threshed out the later part of the week. All threshing is now completed with the exception of the Cereal Nursery grain.

Corn yields on the station will be somewhat below normal judging from present indications. Had last heavy rain been followed by liberal showers yield would have been good as the corn did not appear to be badly damaged by the very dry early summer. A trip through northern part of the county shows from rowed crop prospects one of the driest years in the existence of this section.

Mr. J. M. Stephens and Mr. E. F. Chilcott visited the station on the 11th and 12th.

Maximum temperature for the week 93; minimum 47; precipitation .16".

Archer:

The past week continued dry and warm. Oats and spring wheat are turning to a ripe color. Thrashing of some of the winter grains and early oats was accomplished during the last half of the week. The winter wheat produced rather light yields. The highest yield, 40 bushels per acre, was produced on a date of seeding experiment. The yields produced on Dry Land plats which have been thrashed are as follows:

Rotation.	Plat.	Yield in bu. per acre.
114	C	23.5
116	C	27.5
C.C	A	10.7
C.C	B	12.1
C.C	D	22.9
C.C	E	9.3
C.C	F	10.8

The grain from the above plats is of the best quality. Preparations are under way for the seeding of winter grains.

Maximum temperature 91; minimum 52; precipitation .16".

Ardmore:

The weather has continued dry and hot with no precipitation of any importance. Corn and cane are suffering very greatly for lack of moisture. The corn crop will produce very little grain and the cane crop will be the lightest in the history of the station.

The threshing of small grain has been completed. The following table will give briefly some of the returns from some of the small grain crops:

Crop.	No. Plots.	Highest yield.	Lowest yield.	Ave. yield.
Spring wheat	39	33.3	4.6	15.5
Winter wheat	12	38.3	4.8	20.00
Oats	41	81.2	13.1	41.6
Flax	13	8.7	.9	5.4
Barley	9	30.2	7.0	14.7

For the first time in the history of the station plots that were summer fallowed the previous season have given outstandingly better yields than other methods of farming. The highest yields in Spring wheat, Winter wheat, Oats, Flax and Barley were obtained in each instance from plots that were summer fallowed the previous season.

The lowest yields of barley and spring wheat were obtained from plots that have been fall plowed and continuously cropped to Barley and Spring wheat since 1912.

The lowest yield of winter wheat was obtained from a plot that had been continuously sub-soiled and cropped to winter wheat since 1912.

The returns from flax showed similar results as winter wheat.

The lowest yield of oats was from a plot in a five year rotation where it was sowed on fall plowed alfalfa sod land.

The average yield of spring wheat on all disked corn ground plots was 19.1 bushels per acre, while the average yield of same crop on summer fallowed plots was 22.18 bushels per acre. The average yield of oats on disked corn ground plots was 45 bushels per acre, while the average of same crop from summer fallowed plots was 59.9 bushels per acre.

A 30 acre field of oats that was in a sod crop of corn in 1920 produced 44.4 bushels per acre. The corn crop in 1920 yielded practically 25 bushels per acre. The stalks were allowed to stand in the field during the winter. This method of farming has shown considerable advantages in this country as the standing stalks catch a great deal of snow.

A 60 acre field of oats which was in cane and corn cut for silage in 1920 yielded 25 bushels per acre.

Maximum temperature for the week 95; minimum 36; precipitation .44".

Bellefourche:

The corn has all commenced new growth since the rains during the latter part of July, but only a very few plats will be able to produce any grain. Sorghum, except the plats on fall plowing, is growing nicely and will probably make a good yield.

Fall plowing was commenced on August 12. The soil is in good condition for plowing.

Threshing yields from the surrounding country indicate that yields even on irrigated land will be generally low.

Mr. C. S. Scofield was a station visitor during the week.

Maximum temperature 91; minimum 46; precipitation .37".

Big Spring:

It has been another very hot week with the maximum temperature ranging 100 or above on five days of the seven. Due to this hot, dry weather crops on the farm are maturing rapidly and will soon be beyond recovery unless it rains soon. The cowpeas in the rotation and variety plats were harvested

during the week. Many of the milo plats in the rotation and c.c. series have about dried up completely and will have to be harvested soon to prevent lodging. The water situation has been very serious the past two or three weeks. The wells from which the water supply for the city is pumped seem to be failing and we have been without water most of the time and have had to haul the station supply. Maximum temperature for the week 104; minimum 62; wind velocity 4.6 miles per hour; evaporation 3.23 inches; precipitation, none.

Dalhart:

The past week has been quite dry and hot. Three attempts were made to rain but were mostly failures, two being .01 and one .07 inches respectively.

All crops are making rapid progress and are looking good. Most everything is headed at this writing. Sparrows have begun work on the varieties and date plantings and were doing so much damage that it was necessary to hire a boy to shoot them. Since the first of the week the bird damage has been curtailed as the boy kept steadily on the lookout. It is likely that two more weeks will put the sorghums out of the way of damage by birds but close work will be needed during this time to save the grain.

Considerable work was accomplished this week. The threshing of oats, wheat and rye was finished the first three days. All the oat stubble was disced during the week. The remainder of the time has been spent in cleaning roadways of the dead grass and weeds that were mowed.

The farmers' picnic was to have been held here on August 19 but at this writing there is an uncertainty of its being held at all. Two factions, farmers' organizations, have split on the question and have about blown things up in this line.

Last Saturday Messrs. J. M. Stephens and E. F. Chilcott arrived here by auto in the p.m. and left in the evening to inspect the Tucumcari Field Station, returning to Dalhart Sunday at 12:30 p.m.

Edgeley:

Ideal threshing weather has prevailed during the past week. Twenty threshing machines are at work within a radius of five miles of Edgeley. The yields of grain are proving a disappointment to the farmers. Rust and dry weather combined caused the reduction in the yields. The rust resistant varieties of wheat are giving the best yields and weight per bushel.

The week just ended has been hot and dry. Corn will have to be cut if the dry weather continues for a few days longer. We have done no threshing at this station because of the delay in shipment of our new threshing machine.

Maximum temperature for the week 91; minimum 38; precipitation .25".

Havre:

The past week has been about normal as to temperatures with no precipitation. Wind velocity has been about normal with the prevailing direction during the latter part from the east.

Threshing of the plots is nearly complete, there being very little interruption since this work was started on the 6th.

Altho the precipitation during the growing season has been slightly more this season that it was last, the yields will be about the same for

both years. The range due to tillage methods will however be much larger this year.

The following shows a brief summary of the rotation plots:

Crop.	Max. yield.	Rotation.	Min. yield.	Rotation.	Average.
Spring wheat	19.0	MCD	4.3	8-b-B	10.0 bu.
Winter wheat	19.3	172C	5.2	115	11.8 "
Barley	34.8	MCD-b	1.9	MCB-c-Sub. S.	12.6 "
Oats	43.5	171	10.0	578B	23.7 "

Corn has made very little growth the last week but does not seem to be suffering especially and with a little rain and the temperatures as they are at present will mature grain. Ears have formed as well as they have since the station started.

Professor Plew of the Engineering Department of the State College was at the station during the week assisting with plans for the remodeling of one of the Fort buildings to be used as an office for the station.

Huntley:

Weather during the week has been characterized by cool nights and rather warm days. Several light showers have falled but at no time has the precipitation been measurable.

The chief field work has been the taking of the harvest set of soil samples. As usual the moisture is exhausted from all cropped plats. Plats which have been fallowed this season have moisture extending into the third foot in most cases. In the M.C. corn series, the soil is dry in all plats except where the crop is being grown on fallow and on spring listing where a small reserve is to be found. The corn crops on these plats are the only ones that are not burned up. It is possible some grain may be harvested from these methods.

Station visitors this week include Mr. C. S. Scofield and Mr. A. C. Cooley.

Maximum temperature 94; minimum 39; precipitation, trace.

Lawton:

Hot winds which were prevalent last week were checked this week with the exception of one day by partly cloudy weather and local showers. Seven showers during the week totaled .43" of precipitation. The showers were very local and in some localities good rains were received. Wherever rain has not fallen during the last month farm operations are slow as plowing for fall wheat can not progress until the ground is again soaked up.

All crops have suffered from drought and chinch bugs. On the 9th, and 10th the corn on all rotation plats was harvested. The grain was practically mature but the foliage was burned severely. Red Amber seeded April 15, May 1, and May 15; Black Amber, and June corn which are in the variety tests of forage sorghums were harvested August 9. Several of the forage forghums are lodging badly from the effects of chinch bugs and dry weather. In some cases it is quite probable that harvesting will be necessary before the crop is mature. Birds have done and are still doing severe damage to some of the grain sorghums both in rotation and cooperative projects.

Maximum temperature for the week 101; minimum 68; evaporation 1.578"; average hourly wind velocity 4.6 miles; precipitation .43".

Mandan:

Agronomy.

Field work on the soil texture survey of the triplicate 1-9 Rotation in the main field has been completed.

Corn in the Rotations and Variety test is showing signs of ripening. Very probably seed corn picking will begin just as soon as threshing is completed which will be, it is expected, some time next week.

The weather for the week has been somewhat cooler, but no rain of any consequence has been reported.

Maximum temperature for the week 93 on the 8th; minimum 45 on the 7th; precipitation, Trace.

Cooperative Grazing Experiment.

The annual mowing experiment was completed during the week. The units that were mowed in 1920 averaged 307 pounds per acre. The units that had not been mowed since 1919 averaged 610 pounds per acre. The hay of the latter was not of as good quality as that from the units cut annually as it contained the old growth and the weeds were coarser.

The cattle are still on the thirty acre pasture but will no doubt have to be moved soon as they have very little feed left.

Horticulture.

Plum varieties are now ripening. The Opata has already been picked, and several other varieties will be picked next week. A fairly good crop was obtained. Unpruned trees yielded more than pruned trees in the variety test orchard.

Cabbage, especially from the early sowing, gave an excellent yield of good quality. About 600 pounds have been harvested. Tomatoes in the Acre garden are also yielding well and the fruit is large. Beans and corn are almost a failure.

Tomatoes from the breeding plots are setting fruit heavily after the rain. The crop will be delayed about three weeks, but from present indications some good selections may be expected.

The flower beds on the grounds are doing especially well this summer and the shrubbery is showing up well since the rain.

North Platte:

Weather for the past week has been dry and hot throughout. The condition of corn and forage crops has declined materially furing the week. Early fall plowing has been done on all D. L. A. plats. The ground broke up cloddy wherever there were weeds on the stubble. A packer is being run over all plowed plats to reduce air spaces in the furrow slice.

Mr. Cobb, Shelterbelt Inspector, and Mr. Baxter of the Office of Forest Pathology, were station visitors during the week.

Scottsbluff:

Threshing of small grains crops is in progress. Yields are running considerably below normal. The weather continues hot and dry with occasional high wind movement. Prospects for a corn crop have been materially reduced by the drouth of the past month. Many of the plats are beyond recovery and

will be cut right away. Dry land potatoes are looking good yet, and will make a fairly good yield.

Preparations are being made for a station picnic to be held August 17.

Station visitors included Mr. C. S. Scofield, in Charge of Western Irrigation Agriculture, Dean E. A. Burnett, of the State College of Agriculture, Mr. L. L. Zook of the North Platte Station, Prof. H. O. Werner, State Horticulturist and Mr. F. E. Cobb of the Mandan, N. D. Station.

Maximum temperature for the week 93; minimum 46; precipitation .08".

Sheridan:

The weather for the past two weeks has been somewhat cooler with some cloudy weather and several traces of rain, but no rainfall great enough to measure.

The oats on the station were thrashed during the week. Yields ranged from 0.0 on nine plats to 34.4 on Rotation 71. The average yield for all plats was 8.1 bushels. The different methods of tillage yielded as follows:

Fallow, 5 plats	24.8	bu.
Disked manure, 5 pls.	17.4	"
Disked corn & cane	9.3	"
S. P.	5.7	"
F. P.	1.1	"
Sod	0.0	"
Disked oats	5.7	"

Five plats on fall plowing, the two on sod, and the sub-soil and listed plats were a complete failure. Damage from grasshoppers was most pronounced on the spring plowed and disked plats, the yields on these plats being cut at least a third, whereas the most of the fall plowed plats would have been a failure anyhow, due to drouth alone. The hoppers seemed to do very little damage on the better grain.

The corn on the station had become so badly dried by the last of the week that all but a few of the better plats in the rotations and the greater part of that planted for feed was harvested Friday and Saturday. The plat of cane in Rotation 58 also was harvested. The other cane plats in the rotations still have a good appearance. The cane and the Sudan grass in the Forage Crop will be mowed the first of the week as it has practically burned up.

Maximum temperature for the week 95; minimum 40; precipitation, Trace.

Tucumcari:

Soil moisture conditions were somewhat improved this week with the small sum of .86 inches of rain. This rain helped the condition of growing crops a great deal altho they were not suffering. There has been considerable cloudy weather during the week which helped to keep down the temperature. The maximum temperature reached 101 during the week which is at the top of the list. Everything in the way of crops is looking fine considering. The east two thirds of the south field is a sorry looking spectacle on account of so much soil blowing that has occurred from year to year. This part of the field is a sore eye to the rest of the plat fields but is clean and well cultivated. Winter rye was thrashed last week and averaged around 17 bu.

Arrangements are being made at this time to have the well back of the office drilled deeper. This well has been out of commission for nearly a year and the other well does not supply enough water for station needs. For some time it has been necessary to haul water for stock and house use.

Messrs. J. M. Stephens and E. F. Chilcott visited the station and inspected all crops and everything in general on Sunday, August 7.

Maximum temperature 101; minimum 62; precipitation .86 inches.

Woodward:

Our drouth has been broken by two good showers and one downpour of 2.45 inches of rain in about an hour. This caused a good deal of run off and soil washing as it fell so quickly. We were beginning to need rain very badly. Most of the crops were still in good condition but would not have been much longer. Some of the corn and broomcorn was firing pretty badly. Kafir had gone ahead heading and milo was doing pretty well, though apparently being held back on a few plots.

Most of the work during the past week has been disking on the dairy quarter section, picking grapes, cleaning up a few patches of weeds, and other odd jobs, and working on machinery when it was too wet to work in the field.

Mr. Burnham, from the Lawton Station, was a visitor at this station Wednesday.

Maximum temperature 102; minimum 59; average hourly wind velocity 4.8 miles; evaporation 1.985"; precipitation 3.41".

Note No. 1.

Referring to telegram from this office of August 15 requesting information as to offers of positions and declinations since April 1, 1920, this information was requested by the Office of the Secretary and was furnished by all the offices of the Bureau. It is not known for what purpose this information was desired.

Note No. 2.

A Attention is invited to quotations below from a "Memorandum for Heads of Offices" by the Chief of Bureau, under date of August 9, 1921. Please read same carefully and comply with the instructions contained therein.

"Some of the offices of the Bureau are apparently overlooking Memorandum for Heads of Offices dated July 9, 1918, concerning the furnishing of lists of dealers to inquiries and it therefore seems desirable to republish it, as follows:

"We are frequently requested by farmers and others to furnish lists of business concerns, such as seed dealers, nurserymen, manufacturers of farm implements and other equipment required for use on farms, orchards, and gardens. Adequate service to the public requires the furnishing of information in response to such requests where this is possible.

To avoid misapprehension by the public as to the exact significance of such information, any such lists, whether written in the body of a letter or forwarded as enclosures, should make clear that the addresses are furnished merely as information and that this does not imply any recommendation

of the firms or their wares or any guarantee of their business standing or financial responsibility by the Department. * * * * * * ".

In compliance with the above some offices are using a rubber stamp bearing the following wording while others incorporate a similar clause in the body of the letter:

"These names are furnished merely as information and this does not imply any recommendation of the firms or their wares or any guarantee of their business standing or financial responsibility."

Will you please bring this to the attention of all members of your force who prepare correspondence involving the furnishing of such information."

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WEEKLY STATION REPORTS

OF THE OFFICE OF

DRY LAND AGRICULTURE INVESTIGATIONS

BUREAU OF PLANT INDUSTRY

U. S. DEPARTMENT OF AGRICULTURE

AUG 20 1921

REPORT FOR WEEK ENDING AUGUST 20, 1921.

AKRON:

All early fall-plowed plats were plowed during the week, with the exception of the Moisture Conservation Series. Plats F were listed and Plats E were subsoiled, but plats B were not plowed. The ground turned up dry in most every case and thistles were quite troublesome. Weeds have made an unprecedented growth during the past three weeks, and the whole station force has been busy each opportune time fighting them. Mr. H. P. Gould visited the station on Monday and on Tuesday and the entire time was spent on taking notes on the fruit trees and on pruning dead wood from them. Nursery threshing on the Cereal Project is in progress.

Considerable wheat seeding will be done over the county this coming week. Some commercial fields have already been seeded. Early seeding is coming to be quite common practice in this section. First rate and date of seeding was done on the Cereal Project during the past week.

Station visitors, Mr. H. P. Gould of the Horticultural Office.

ARCHER:

The weather has continued dry with warm winds occurring on August 18. Corn in the general field is burned as is also some of the corn on the Rotation plats. The oats were ripe the last of the week and spring wheat will be ready to harvest in a few days. The flax is ripe and the varieties have been harvested as has also most of the common spring wheats. All the winter wheat from the Rotation plats has been threshed. The yields were very satisfactory.

Maximum temperature 91; minimum 43; precipitation .02 inch.

COLBY:

Field work during the week consisted of finishing of plowing for wheat on the commercial field of the station; working fallows; killing weeds; and trying to thresh. Grain was too damp all week for threshing until Saturday when we thought that we would be able to get started again. We were stopped not by rain but by a broken casting today. We should be able to thresh again by Monday as the grain will be sufficiently dry to thresh. Five times we have been rained on while threshing during the past four weeks and have been able to thresh but four days of that time.

Corn is just in and past the roasting ear stage. It has not filled out very good, but inasmuch as it was not injured by either the dry weather or hot winds a crop better than average is almost assured. Milos and kafirs on the plats are heading out, most, of them having a good heavy growth of stover and good yields are expected. Maximum yields of winter wheat was 42.8 bushels; minimum yield 4.8 bushels on disced corn ground. Average for all plats of winter wheat 24 bushels.

Visitors during the week included Mr. Burnham of Lawton, Oklahoma, Mr. Keating of Garden City, Kansas, and Mr. Halstead of Hays, Kansas.

Maximum temperature 92; minimum 58; precipitation .90 inch.

DALHART:

The weather has been pretty warm all week with threatening clouds at times. One little shower occurred last night (Friday) but was barely enough to lay the dust.

Dalhart, continued:

Grass on the range has turned considerably the past week toward maturity. In another week with a continuation of dry warm weather the whole prairie will burn readily if set afire. Crops are making good headway and moisture seems to be in good shape for continued growth. Nothing is suffering for want of rain that has come within observation in the county. Red amber on the first two dates is nearing maturity and will be harvested the first of the week if weather permits. The sudan and millet in the Forage variety test will also be ready to harvest next week. Field corn is in the milk and at the right stage for roasting ear. The bulk of the variety sorghums is just entering full head this week.

Sparrow and other bird damage to the experimental plats has been stopped effectively this year, by keeping a boy walking through the varieties and date plantings shooting birds with a .410 shot gun. Field work for the week consisted of hauling off all weeds and grass mowed from roadways, some hoeing, cultivating, machinery repairing, and grinding feed.

Mr. Burnham of Lawton, Oklahoma visited the station on Wednesday of this week.

EDGELEY:

The past week has been showery with high winds. Just enough rain fell to interfere with threshing. Our new threshing machine arrived today. It will take a few days to get the machine in shape for threshing. Corn is drying up and can be cut any time now.

Maximum temperature 91; minimum 37; precipitation .31 inch.

GARDEN CITY:

The weather during the past two weeks has been warm with hot winds blowing part of the time. The sowed kafir has fired badly, but the rest of the plats show no evidence of suffering from the lack of moisture. If it does not rain soon crops will start burning for there is little or no reserve moisture in the soil at present.

The birds are doing an unusual amount of damage this year in that they have nearly destroyed the first date of seeding of milo, kafir, and feterita. These were the first plats on the station to start heading, and the birds have nearly stripped them of their seed.

The work for the week has consisted mainly of harvesting cowpeas and threshing millet. The fallow plats were also cultivated.

Mr. J. M. Stephens and Mr. E. F. Chilcott visited here on the 11th.

Maximum temperature 101; minimum 58; precipitation .14 inch.

HAYS:

The drought has been broken. A rainfall of 2.32 inches occurred on Saturday night, the 13th. This seems to have been another local rain as most rains which have occurred for some time have been the difference between this one and others being that it centered on the Experiment station. It is the first worth-while rain since July 4, and needless to say it was very much needed.

Corn was so badly burned on the Dry Land Project before the rain that it did not respond to the changed condition. It was harvested today. Seedbed preparation for wheat continues. The ground was too wet for field work during the first three days of the week, but since then teams and tractor have been busy on the commercial fields.

Superintendent Kent who recently resigned leaves tomorrow. No announcement of the appointment of a new superintendent has been made.

HAVRE:

There have been three showers during the week, totalling .53 inch which has given temporary relief to corn. The early seeding is filling normally. Plats that were taken with cutworm and reseeded late in June will make no grain, but have not suffered from drought as much as the early seeding and will make excellent fodder. As has been the case in previous years the marginal rows of corn when grown adjoining a small grain plat are much smaller than the ordinary corn on the plat. Yields this season will have to be taken on eight and nine rows in many cases instead of on the full ten rows. The decrease in the marginal rows has been peculiar to this station and is probably due to the lateral feeding of small grain and Russian thistles so that the soil moisture along the edge of the plat is below the minimum for corn.

Threshing in the county is progressing, yields varying from four to fifteen bushels.

HUNTLEY:

The greater part of the week was devoted to threshing grain from the Dry land fields. As was expected, yields were generally small, though considering the season both winter and spring wheats made a creditable showing. Yields of the former ranged from 2.0 to 30.5 bushels per acre, while spring wheat went from 1.5 to 26.2 bushels per acre. The maximum yield of oats was 44.1 bushels and the minimum 5.0 bushels, and barley returned a maximum of 15.2 bushels and a minimum of .4 bushels per acre. Flax was generally poor, ranging from .7 to 7.0 bushels per acre.

Station visitors during the week included C. S. Scofield and A. C. Cooley of the office of Western Irrigation; J. M. Stephens and E. F. Chilcott of the Dry Land Office; Director Linfield of the Montana station, and Dr. Larsen of the Dairy Division, Bureau of Animal Industry.

Maximum temperature 95; minimum 44; precipitation, Trace.

LAWTON:

Another week of hot, dry, and partly windy weather has had a very noticeable effect on all growing crops. All grain sorghums are badly fired, but indications are that most of them will practically reach a stage of maturity before lodging occurs. This, of course, does not apply to milo, which was destroyed earlier in the season by chinch bugs. M. C. H. milo is about the only plat on the farm that survived and made a crop. Many of the forage sorghums are lodging before maturity and are being harvested a little early. In most cases with the exception of the later date plantings, the yield of forage will be very good, and most of the grain may mature in fair shape in the shock. Cotton is still green but wilting daily. The present crop of bolls is light. An open boll is occasionally found in the April 15 date of planting.

During the week the following crops were harvested: M.C.H. milo, sumac on M.C.H. and Rot. 199, June 1 planting date of Red amber, April 15 date of kafir No.628, Freed sorgo, Husser sorgo, and forage kafir in the forage sorghum project.

Judging from present indications considerable harvesting in the grain sorghums will be done next week.

Maximum temperature 98 to 100; minimum 64; evaporation 1.710 inches; precipitation 0; average wind velocity 4.6 miles.

MANDAN:

Despite the depressing effect of crop conditions, or perhaps as a reaction, the Missouri Slope Fair is planned to open Monday, August 29 on a much larger scale than ever before, and seems likely to enlist the interest of a very large portion of this slope area.

Mr. J. M. Stephens returned to the station on Tursday from a trip taking him to Washington, D.C., Woodward, Oklahoma, parts of Texas and Kansas, and home through Denver and Billings. Mr. V. D. Gilman also returned, having completed his Shelterbelt Inspection work; he hopes to take up his duties in Smith Hughes work at the High School, Ryegate, Montana, early next week.

Among the visitors at the station during the past week we had calls from Mr. Clarence Wedge of the Albert Lea Nurseries, travelling this Western country in the interests of The Farmer, published in St. Paul; Mr. R. L. Webster, State Entomologist, from the North Dakota Agricultural College; Prof. D. N. Borodin, studying social and crop conditions more particularly in the Russian sections of the country, and in the interests of "America's Making" a pageant to be staged in New York shortly by state and city educational authorities; and Mr. E. F. Chilcott, superintendent of the Woodward, Oklahoma experiment station.

NORTH PLATTE:

The best rain of the season occurred August 14 and 15. The station gauges registered 1.73 and 1.91 inches. This rain came slowly and was practically all taken up by the soil. It also covered a wide stretch of territory. A good deal of corn was beyond recovery, but there are many fields which will be greatly benefitted. The soil is in good condition for plowing. Pastures and forage crops have greatly improved in condition.

TUCUMCARI:

The weather has been cooler here this week, with a good supply of rain. A total of 1.66 inches of rain fell which helped crops wonderfully.

Crops are making good progress. Some roguing was done in the plat fields which helped the looks of things considerably. Everything was covered in the roguing. Some hoeing was accomplished in odd and out of the way places on the station. A new cattle feeding pen was constructed this week in the cow pasture. Winter wheat and rye were planted on Tuesday of this week.

One calf died during the week with what is supposed to be blackleg. The remainder of the calves will be vaccinated next week if the vaccine can be procured.

Maximum temperature 90; minimum 63; precipitation 1.66 inches.

WOODWARD:

The first part of the week was a continuation of the rainy weather of the week before, with 1.70 inches of precipitation in two days. We have had a total of 5.11 inches since the 1st of August.

Since it quit raining we have prepared the ground and sown about 20 acres of alfalfa on the Dairy quarter section, and are preparing the ground for wheat and rye to be planted for early pasture. At present the roads in the experimental projects are being disced in preparation for sowing to wheat to prevent soil blowing.

Blackeye cowpeas which were hauled in about ten days ago made yields ranging from 3050 to 4550 pounds to the acre and averaged about 3600 pounds to the acre on 17 plats. Early Blackeye and Early Buff cowpeas in the

Woodward, continued:

variety hay test (planted June 16) were harvested August 18.
Maximum temperature 96; minimum 67; average hourly wind velocity 5.7 miles; evaporation 2.032 inches; precipitation 1.70 inches.

NOTE:-- This office recently requested one copy of the Yearbook of the Department of Agriculture for 1920 to be sent to each of field station. The allotment of Yearbooks to this office was very limited in number and the sending of one copy to each station completely exhausted our allotment. It will, therefore, be impossible to forward Yearbooks to the addresses sent to this office by some of the field men.

OCT 1 1921
BUREAU OF
PLANT INDUSTRY

WEEKLY STATION REPORTS

OF THE OFFICE OF

DRY LAND AGRICULTURE INVESTIGATIONS

BUREAU OF PLANT INDUSTRY

U. S. DEPARTMENT OF AGRICULTURE

AUG 27 1921

REPORT FOR WEEK ENDING AUGUST 27, 1921.

AKRON:

A continuation of the hot weather, so prevalent all summer, was experienced throughout the past week. Local showers occurred, but this section was not benefitted.

Nursery threshing of the winter wheats was completed during the week, and part of the fall nursery seeding was accomplished on the Cereal Project. There is a belief among wheat growers in this section that early seeded wheat does not smut as badly as wheat seeded late. An experiment has been started this fall to test out this belief.

Other work consisted in hoeing weeds, discing the orchards and certain weedy fallow strips, and in fanning and grading some two hundred bushels of kanred wheat, which the station will have for distribution among the farmers this fall.

Station visitors have been numerous during the week.

Maximum temperature 91; minimum 51; precipitation .19 inch.

ARCHER:

The dry weather experienced at this station continues without interruption. Three light showers occurred during the week with a total precipitation of .45 inch. This has not been sufficient to moisten the dry mulch of top-soil. The greater part of the corn in the general field has dried, or is in a withered condition. The sunflowers are doing better, but they too are in a bad condition. Corn on most of the fall plowed plats has practically dried up. Fortunately this condition is not general. Quite a number of good rains have occurred to the north, south, and west of this station, and in some places railroad grades have been washed out.

The work of the past week consisted of harvesting spring grains, stacking increase areas, and rebuilding track and crane for litter carrier for the dairy barn.

Maximum temperature 85; minimum 52; precipitation .45 inch.

ARDMORE:

The weather has continued very dry during the past two weeks, with only a very small amount of precipitation, not enough to be of any benefit whatever to the crops.

This has been by far the driest season that has been experienced since the station has been in operation.

During the past ten days all the rotation plats of corn have been cut. The grain yield will be light and the fodder is much below the normal yield.

The average date of cutting of rotation plats is thirty days later than it was cut this season.

Practically all of the corn and cane has been cut for silage. One field of corn containing about twenty-five acres yielded approximately three tons of green feed per acre. This field was better than the average of our rotation plats, and will make most excellent silage, as it contains a large proportion of grain compared with the stalks.

Cane yields will be very light; in fact, one field of 60 acres is hardly worth cutting at all.

Enough corn and cane has been produced, however, to fill two silos and as one silo was carried over full from the precedeing season we have an abundance of feed available for use this year.

Ardmore, continued:

Visitors at the station were Mr. F. E. Cobb, of Mandan, Mr. E. V. Baxter, Office of Blister Rust Control, and Mr. Dexter, of Brookings.

Maximum temperature 102, on the 19; minimum 50, on the 17; precipitation .32 inch; for the month .55 inch.

BIG SPRING:

The weather this week has not been quite so warm as the previous two weeks, though the drought remains unbroken. All the milo in the rotation and c.c. plats has been harvested and shocked.. The cowpeas in the twenty-two rotations plats harvested the previous week made an average yield of 2190 pounds of hay per acre. The yields on these plats ranged from 1400 to 3000 pounds per acre. As the weather was dry the quality of the cowpea hay is fine and above the average of the usual season. Several of the varieties of sweet sorghums were harvested during the week and the yield will be fair and close to average for the past several seasons. On account of the shortage of water in the city wells it has been a problem to get sufficient water for local needs. Unless it rains soon, or the situation is otherwise relieved, we will lose a number of the shrubs and trees on the station.

Maximum temperature 99; minimum 66; wind velocity 4.0 miles per hour; evaporation 3.09 inches; precipitation 0.

EDGELEY:

The past week has been warm with cloudy weather. Corn is beyond help of rain now. We began cutting corn today. Most of the leaves have dried up on the corn and it was thought best to cut it before the high winds carried them away.

Threshing is rapidly nearing completion in this district. With another week of good weather most of threshing machines will pull in. A fair crop has been harvested and threshed in this vicinity, but regardless of this many of the farmers will need extended credit. The low price of farm products in comparison with other commodities the farmers have to pay is working havoc with the farming industry. It is unfortunate that some reports have gone out from high authority that farmers in this section are in good shape after selling their crops this season and will be able to clear up their bills in good shape. Any one familiar with the financial condition of the farmers in this district may readily chalenge that statement. Oats are selling here for 14 cents per bushel, barley for about 45 cents, rye 80 cents, and wheat from 60 cents to $1.00.

Maximum temperature 92; minimum 41; precipitation .7 inch, which fell Friday.

GARDEN CITY:

The weather this week has continued hot and dry with the thermometer registering 100 degrees or above for the last seven days.

Some of the corn has been damaged to a large extent and milo has started to suffer from the lack of moisture. The corn on plowed land had burned so badly that it was necessary to cut it this week. The drilled kafir plats were burning so badly that they had to be harvested before any heads had formed. The red amber and milo plats of the May 15 date of planting was harvested this week, but the birds have damaged the latter so much that very little seed will be obtained. The cowpeas were hauled in this week;

Garden City, continued:

they averaged about one and a half tons per acre of fairly good quality hay.

Mr. E. F. Chilcott of Woodward, Mr. Barnes of Colby, and Mr. Chrittenden of Hays were station visitors on the 26th.

Maximum temperature 101; minimum 63; precipitation 0.

HAYS:

The weather during the week has been dry, hot, and quiet, practically no wind blowing. The temperature ranged from 61 to 103, the maximum having been above 100 five days during the week.

Sorghums failed to respond to the 2.39 inches of precipitation of August 13, as it was expected they would do. Some of the varieties and the late plantings, or early plantings on poorly prepared ground were too badly damaged by the drought precedeing the rain. However, the earlier plantings and early varieties planted late are going to make some very good yields.

The county agents of western Kansas held their annual conference meeting at the experiment station Thursday and remained over for the Annual Sorghum Day held here Friday.

Mr. E. F. Chilcott, of Woodward, and Prof. Parker and Mr. Bayles of the Agronomy Department of the Kansas State Agricultural College were among the visitors of the station Friday and Saturday.

HUNTLEY:

The weather has continued hot and dry during the past week, which has enabled us to continue threshing operations and all hands have been engaged in this work. All irrigated and dry-land grains with the exception of some row tests of wheat have been cleaned up. In addition to the above some work has been done toward cleaning up weeds along the fence rows in the dry-land fields.

The 14th Annual Picnic is in progress at the station today and indications are that the crowd will not be as large as heretofore. Among the station visitors in attendance at the picnic were Mr. and Mrs. Beyer Aune of Belle Fourche, and Director Linfield of the Montana Experiment Station.

Maximum temperature 98; minimum 48; precipitation, Trace.

JUDITH BASIN:

The drought has continued unbroken except for a shower of .37 inch on the 26th. The moisture received was not sufficient to be of any benefit to the growing crops. Sunflowers are wilting badly and corn and potatoes are suffering seriously from lack of moisture.

Harvesting of all grain crops on the station has been completed and threshing is well under way. An average yield of 43 bushels per acre was obtained on a 50 acre increase field of Kharkov and 47 bushels of grain were secured from an acre of Karmont winter wheat. Yields of winter wheat reported by farmers in the "Basin" vary from 6 to 37 bushels per acre.

Maximum temperature 91; minimum 42; precipitation .37 inch.

LAWTON:

The thermometer reached 103 degrees on three days of the past week, while 102 was the maximum temperature the other four days. Wind velocity has been low, 3.4 miles per hour, while there has been no precipitation.

Lawton, continued:

Sorghums on upland are firing badly and in many cases are going down, due to lack of moisture. Only .43 inch of rain has been recorded the past five weeks. Station cotton is small; the leaves are wilting and indications point to a very low yield.

Practically all kafir in the rotations has been cut, while milo plats in rotations were cut and discarded, as they were total failures, with the exception of MCH. Variety grain shorghums, with the exception of shallu and variety forage sorghums excepting honey have been cut. Spacing test plats and the early date tests of grain sorghums are also in the shock. Seed was selected from all variety plots early in the week.

Three loads of standard kafir No. 71 and dawn kafir No. 340 heads were cut and hauled, while the headed plants were later cut and shocked. About three acres of No. 340 kafir in alternate rows remains, and this will be either cut and shocked and threshed from the shock, or headed.

All shocks in rotations and all except a few in the forage sorghum block have been covered with burlap sacking to prevent birds from stripping the heads.

MANDAN:

Agronomy.

Threshing of fields and plats was finished early this week. On the whole yields of all crops under all conditions of treatment were very low. The highest yield of wheat was on land fallowed for three consecutive years in Rotation 570. The highest yield of oats was 17 bushels, and was on spring plowed land in Rotation 2. Barley was a failure under most conditions of preparation. Flax made no grain yields at all.

The quality of the wheat was fair, running about 56 pounds per bushel as it came from the machine. Oats were very light, running 20 pounds or less per bushel.

Harvesting the silage crops was completed during the week. The following table gives some of the yields of green fodder per acre:

Crop	Green weight in tons per acre	Acreage grown
N.W. Dent (feed block)	2.3	3.2 acres
" (silage test)	3.7	0.4 "
Sunflower	4.8	0.4 "
Red Amber	6.6	0.4 "

The weather for the week has been rather warmer than the two or three weeks immediately precedeing.

Horticulture.

The weather continuing hot and dry, all fruits and vegetables are maturing rapidly. Plums, while below normal in size are all producing a good crop. Nearly all the Japanese plum hybrids on trial here are showing up especially well this year.

The larvae of the sugarbet web worm have appeared in large numbers and have attacked the fruit trees, especially the younger and smaller ones. All orchards and nursery plantations were sprayed on the 25th with arsenate of lead in order to check the pest.

Mr. Baird left on the 25th on an official trip through the fruit region on the Black Hills, South Dakota.

Mandan, continued:

Maximum temperature 95; minimum 45; precipitation .22 inch.

SHERIDAN:

Threshing on the station was completed Thursday, with the exception of some cane and Sudan grass which is not yet ready. Yields have not yet been computed, but the crop as a whole was very light. Some plats of all crops were complete failures, generally on fall plowing and the E and F plots of the MC series. The highest yields in the Rotations were 26.7 bushels for winter wheat, 25.2 bushels for spring wheat, and 13.0 bushels for barley.

All of the corn, cane, and Sudan grass has been harvested except for the D and F plats of corn in the MC series and some Sudan grass left for seed. The two plats of corn mentioned are the only two plats still holding a normal appearance. Some seed was picked from a few of the other plats before harvesting, but on the most of the crop no ripe ears were produced.

Maximum temperature 98; minimum 43; precipitation 0.

WOODWARD:

The past week has been very hot and dry, with the maximum temperature running from 92 to 101. The maximum temperature was 99 or above on five out of the seven days. The evaporation has been rather high on several days but we have had no hot winds. Crops do not seem to be suffering any from lack of moisture yet. Mexican June corn is nearly ripe and kafir and milo are making good progress toward ripening.

Four plats of broomcorn (CC, D, E, F, and G) were pulled and seeded the fore part of the week, the other two plats (CC-A and B) did not head quite as soon as the ones that were pulled, and so were not quite ripe enough. Eight plats of broomcorn on the Cereal Office Project have also been pulled and seeded during the week. Four more varieties of cowpeas in the hay test have been harvested. The two varieties harvested last week were hauled in and weighed; yields were:

Early Blackeye,	2000	pounds per acre
Early Buff,	2125	" " "

The roads in the experimental projects have been planted to wheat to keep them from blowing. About 15 acres of wheat and rye have been planted for early pasture for the dairy cows.

Mr. Garrett of Oklahoma City, who is connected with the Southwest Silo Company, and Mr. J. W. Back, a nurseryman from Oakwood, Oklahoma, were visitors at the station during the week.

Maximum temperature 101; minimum 65; average hourly wind velocity 6.0 miles; evaporation 2.470 inches; precipitation 0.